

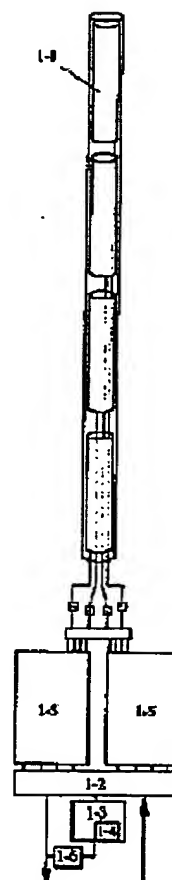
BASE STATION ANTENNA FOR MOBILE COMMUNICATION

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Abstract of JP2000004114

PROBLEM TO BE SOLVED: To broaden the service area and to suppress the deterioration of transmission characteristic due to a delayed wave by arranging an antenna of a base station with plural vertical elements, switching the phase value of each element and performing array synthesis of a tilt angle in the direction of an incoming wave. **SOLUTION:** Plural antenna elements 1-1 are vertically arranged at prescribed intervals to be an array configuration and a directivity forming part 1-2 changes directivity in a vertical plane. The phase operation of each branch is performed by a continuous variable phase shifter using a varactor diode, etc., and phase shifting value is preliminarily set in an amplitude and phase controller 1-3. Thus, it is possible to reduce delay spread and to prevent deterioration of characteristics due to a delayed wave from occurring when a terminal is in the neighborhood of a base station or when the terminal is away from it by tilting the direction of a main beam in the direction of an incoming wave. Further, transmission loss is reduced by controlling a tilt angle so that the main beam can be always in a terminal direction.



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